

Appl. No. 09,682,852  
Amdt. Dated 16 July 2004  
Reply to Office action of May 25 2004

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-19 (canceled).

20 (original). ~~The FCL of claim 19~~ A fault current limiter (FCL) comprising:  
an air core flat clock spiral inductor comprising wound electrically conductive material insulated turns;  
a casing containing fluid between the turns of the air core flat clock spiral inductor, wherein the casing  
comprises a tube wrapped around the electrically conductive material;  
two terminations of the FCL.

21-26 (canceled).

27 (currently amended). ~~The FCL of claim 21~~ A fault current limiter (FCL) comprising:  
an air core flat clock spiral inductor comprising wound electrically conductive material insulated turns;  
two terminations of the FCL,  
wherein the wound sheet of electrically conductive material further comprises an insulation layer on at  
least one surface of the electrically conductive material,  
wherein the insulation layer comprises a shrink wrap.

28 (original). The FCL of claim 27 wherein the shrink wrap comprises a polyolefin or a polytetrafluoroethylene, for example.

29- 37 (canceled).

38 (original). ~~The FCL of claim 37~~ A fault current limiter (FCL) comprising:  
an air core flat clock spiral inductor comprising wound electrically conductive material and insulated turns;  
two terminations of the FCL,  
a housing surrounding the spiral inductor, the housing comprising walls,  
wherein each one of the walls is in electrical contact with at least one other one of the walls,  
wherein the housing further comprises at least one stack of magnetic laminations between at least one of  
the walls and the spiral inductor.

39 (canceled).

Appl. No. 09,682,852  
Amdt. Dated 16 July 2004  
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40 (currently amended). ~~The FCL of claim 39~~ A fault current limiter (FCL) comprising:  
an air core flat clock spiral inductor comprising wound electrically conductive material and insulated turns;  
two terminations of the FCL;  
further comprising a housing surrounding the spiral inductor, the housing comprising walls,  
wherein the housing further comprises at least one stack of magnetic laminations between at least one of  
the walls and the spiral inductor.

41-43 (canceled).

44 (previously presented). ~~The FCL of claim 41~~ A fault current limiter (FCL) comprising:  
an air core flat clock spiral inductor comprising wound electrically conductive material and insulated turns;  
two terminations of the FCL;  
a housing surrounding the spiral inductor, the housing comprising walls, wherein the air core spiral  
inductor comprises a plurality of air core spiral inductors, with each one of the plurality of air core spiral inductors  
comprising a wound sheet of electrically conductive material and insulated turns and situated within the housing;  
and  
further comprising at least one magnetic shield between at least two of the plurality of spiral inductors.

45-48 (canceled).

49 (original). ~~The FCL of claim 47 further comprising~~ A fault current limiter (FCL) comprising:  
an air core flat clock spiral inductor comprising wound electrically conductive material and insulated turns;  
two terminations of the FCL;  
at least one auxiliary cooling unit configured for cooling the spiral inductor and comprising a fan, an air  
conditioner, an auxiliary cooling unit, or a combination thereof;  
at least one heat pipe, wherein the auxiliary cooling unit comprises a heat pipe controller.

50-56 (canceled).

57 (original). ~~The FCL of claim 52~~ A fault current limiter (FCL) comprising:  
three air core flat clock spiral inductors, each inductor comprising a cylindrically wound sheet comprising  
copper and a insulation layer on at least one surface of the copper;  
a housing surrounding the three air core spiral inductors, the housing comprising walls; and  
at least one cooling unit configured for providing cooling air to the three spiral inductors of the FCL,  
wherein the housing further comprises at least one stack of magnetic laminations between at least one of  
the walls and the air core spiral inductors.

58-59 (canceled).

Appl. No. 09,682,852  
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60 (original). ~~The FCL of claim 52~~ A fault current limiter (FCL) comprising:  
three air core flat clock spiral inductors, each inductor comprising a cylindrically wound sheet comprising  
copper and a insulation layer on at least one surface of the copper;  
a housing surrounding the three air core spiral inductors, the housing comprising wall; and  
at least one cooling unit configured for providing cooling air to the three spiral inductors of the FCL; and  
~~further comprising~~ at least one magnetic shield between at least two of the three of spiral inductors.

61-62 (canceled).